DOCUMENT RESUME

ED 056 373 88 EA 003 763

AUTHOR Ackerman, Jerry; And Others
TITLE STEP, Year 1, Volume III: An Enrollment Forecaster for STEP.
INSTITUTION Government Studies & Systems, Philadelphia, Pa.; Trenton Board of Education, N.J.
SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
REPORT NO GSS-R-586-3
PUB DATE [Jun 71]
NOTE 38p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Cost Effectiveness; Decision Making; *Educational Planning; Educational Programs; *Enrollment Projections; Management Development; Operations Research; Program Budgeting; *Program Planning; Systems Analysis; Systems Approach
IDENTIFIERS *Elementary Secondary Education Act Title III; ESEA Title III; *Planning Programming Budgeting Systems; PPBS; Trenton Public Schools

ABSTRACT

This volume describes an automated procedure for multiyear enrollment forecasting in the Trenton, New Jersey, public schools. Enrollment forecasts generated by this procedure will provide enrollment estimates in each district's instructional program. Data required to operate the forecaster will be collected during the second year of its operation. Related documents are EA 003 761 and EA 003 762. (Author/EA)

ED056373

Volume 3

STEP

SYSTEM FOR TRENTON'S EDUCATIONAL PLANNING

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

EA 003 763

1

Government Studies & Systems
3401 Market Street
Philadelphia, Penna. 19104

ED056373

STEP

YEAR 1

VOLUME III

AN ENROLLMENT FORECASTER FOR STEP

JERRY ACKERMAN
ARNOLD POST
EDMOND H. WEISS

2

TABLE OF CONTENTS

	Page
CURRENT ENROLLMENT FORECASTING PROCEDURES IN THE TRENTON PUBLIC SCHOOLS	III-1
Introduction	III-1
Current Procedures	III-2
Summary of Data Used and Reports Generated	III-7
STEP ENROLLMENT FORECASTER	III-11
Introduction	III-11
Structure of the Model	III-13
Logic and Application of the Forecasting Module	III-13
Data Use and Constraints	III-17
Conceptual Design	III-17
Data Constraints	III-18
Data Requirements - Start Up	III-18
Data Requirements - Ongoing	III-19
Calibration of the Demographic Model	III-19
The Reporting Procedure	III-21
OUTPUT REPORTS OF THE ENROLLMENT FORECASTER	III-23
Introduction	III-23
District Summary Reports	III-23
Enrollment Estimations by Program	III-24
Program Summary Reports	III-25
Detail Reports	III-26
Enrollment Estimations of Student Type by School	III-26
Public Enrollment Estimation Totals by School	III-26

LIST OF ILLUSTRATIONS

Figure		Page
III-1	Trenton School District's Current Enrollment Forecast System	III-3
III-2	Activity Flow Chart	III-16

LIST OF TABLES

Table		Page
III-1	Recent Trenton Public Schools Enrollments	III-8
III-2 (Part 1)	Trenton School District Enrollment Estimations - Total Enrollment Estimates	III-27
III-2 (Part 2)	Trenton School District Enrollment Estimations - Public Enrollment Estimates by Grade Level	III-28
III-3	Enrollment Estimation by Program	III-29
III-4	Public Enrollment Estimations for Primary Program by Grade and Student Type	III-30
III-5	Enrollment Estimations for the Cadwalader School	III-31
III-6	Public Enrollment Estimations by School	III-32

CURRENT ENROLLMENT FORECASTING PROCEDURES

IN THE TRENTON PUBLIC SCHOOLS

CURRENT ENROLLMENT FORECASTING PROCEDURES IN THE TRENTON PUBLIC SCHOOLS

INTRODUCTION

As indicated in Volume I, there are three principal factors causing educational costs to change. They are:

a. Inflation, that is, higher costs for the same goods and services

b. Increased (or decreased) enrollment

c. Program changes (projects)

Predicting the impact of inflation in a public school system consists largely of forecasting the distribution of teachers at various levels of the salary schedule and changes in that salary schedule (and attendant benefit package). Inflation forecasting was discussed briefly in Volume I, and will be developed into a detailed cost-forecasting sub-system during Year 2 of the project.

The second source of cost change is enrollment. The Trenton Public Schools, like many inner-city communities, has experienced in recent years a slight diminution of overall city population and a relatively unchanging overall enrollment; this paradox is frequently explained by noting that the migration away from the city has been largely by families who utilized private and parochial schools, while the migration into the district is by people who tend to utilize the public schools to a greater degree. (This generalization is overly-simple and should be qualified by several factors beyond the scope of this report.) Thus, for strategic planning purposes, the changing overall enrollment of the district, at the present time, is not highly important.

Within that relatively unchanging total enrollment, however, there are changes in the types of students in the district, as well as re-distribution of

the population in the various schools and programs of the district. This changing distribution of students has important implications for planning, notably:

a. changing distribution of student weights, as part of the State's new subsidy formula

b. changing distributions of race, affecting the district's desegregation needs

c. changing burdens on facilities, implying needs for redistricting and facilities projects, and

d. changing student needs - because of changing student characteristics - in the district's various schools and programs

Therefore, the enrollment forecasting sub-system has an important role in STEP planning at every stage, as well as in other administrative functions.

CURRENT PROCEDURES

At present, enrollment predictions in TPS are developed in a way that satisfies the management and state-required needs of the district. This set of procedures is the starting point for the more ambitious enrollment forecaster described in Section II of this Volume.

Enrollment forecasting is now conducted annually under the direction of Mrs. Alice P. Kuser, Director of Adult Education. Enrollment by grade level is forecast one year into the future, for the next school year, these estimates being based upon enrollment during the current school year. The following description of the present enrollment forecasting system is keyed to the system flowchart provided in Figure III-1.

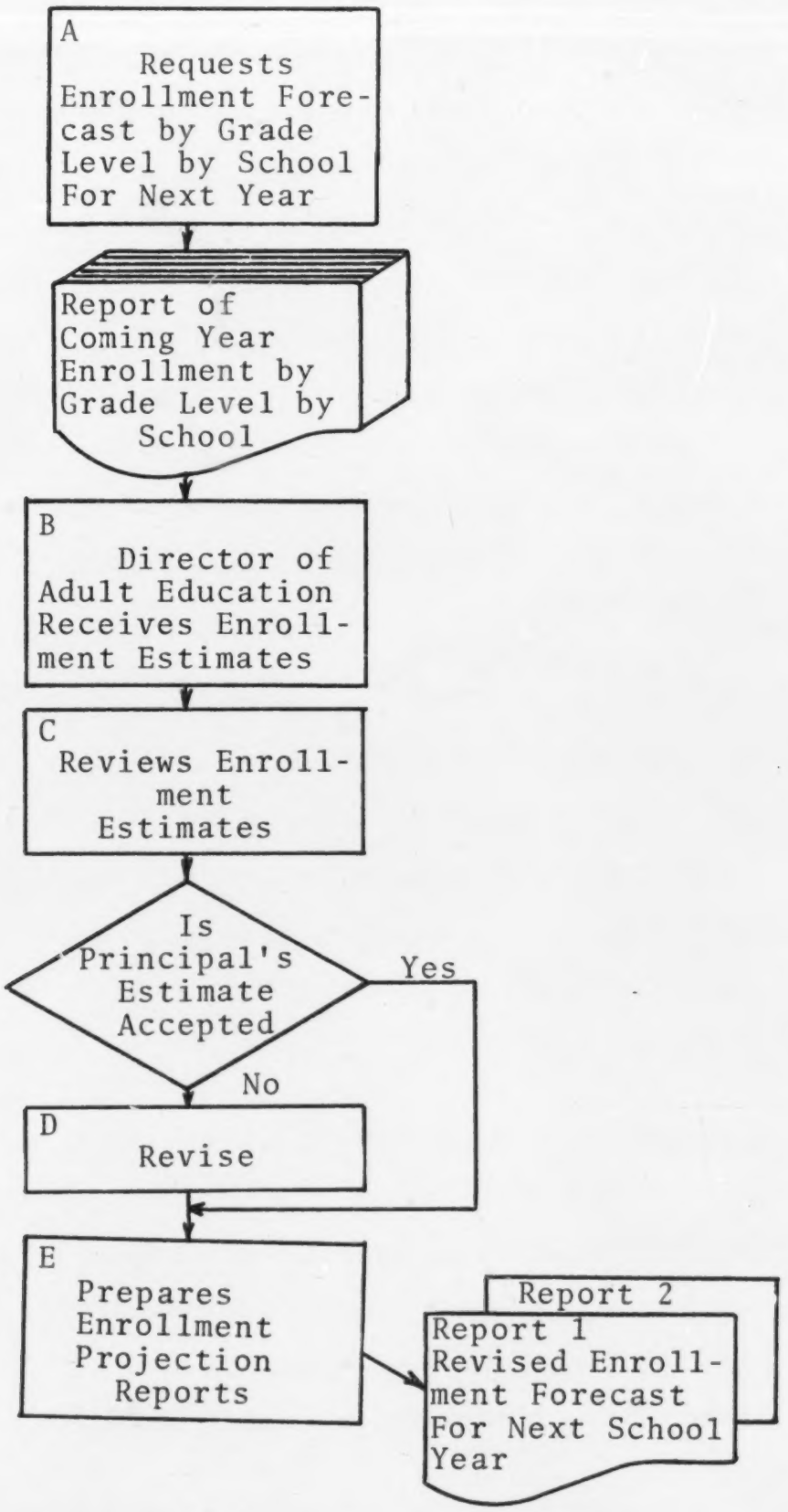

Figure III-1. Trenton School District's Current Enrollment Forecast System

Block - A. Principals are requested to furnish estimates of enrollment by grade level for the coming school year for their respective schools. Enrollment estimates are based upon the principal's "best judgment," including his knowledge of forces in the immediate school community which will influence enrollments at his school for the coming year. "Current year students belonging as of September 30" is the baseline for the projection. Principals are requested to enumerate explicitly the factors that affect changes (up or down) in enrollment. Examples of factors at work in a community are migrations in and out, possibly influenced by new residential construction (multi-unit public housing) or demolition of houses, transfer of parochial school students to public schools, and the like.

Kindergarten projections are based on a "sibling survey" conducted in each elementary school. The classroom teacher asks her students the number of pre-school youngsters at home who will attend kindergarten in the coming school year. The teacher tabulates the data and reports them to the principal. Other than reporting an estimated kindergarten enrollment, it is unclear as to what review procedures, if any, are undertaken by the principal prior to submitting the estimate.

Enrollment projection is also requested for the following special student groups: educable (maximum fifteen students per class); trainable (maximum ten students per class); physically handicapped (orthopedic cases, partially sighted children, etc.); communication disorders (deaf youngsters); students receiving instruction at home or at the Industrial Home, homes for unwed mothers, and, if educable, at Donnelly Hospital.

The principal is also requested to forecast enrollment for Kindergarten - Grade 3 classes that are part of the Follow-through program.

Block - B. As a result of the process described above, each school principal generates a report of his school's projected enrollment, by grade level for the coming year, and submits it to the Director of Adult Education. In addition to the enrollment projection figures, the principal reports the number of students in each grade as of September 30th of the current year.

Blocks - C & D. The Director of Adult Education reviews each school's Estimated Enrollment Report on a grade by grade basis, and either accepts the principal's judgments and reasoning or makes adjustments, again, on a grade by grade basis. Adjustments are made with consideration to several factors. They are never haphazard, but are based upon an in-depth knowledge of each school and its surrounding community. Among the more or less informal considerations are:

a. Review of the number of students enrolled as of September 30 of the previous three years, to determine any trends.

b. Checks with Mr. Jules Tietel, Division of Planning and Development, City of Trenton and with the Public Housing Authority to ascertain new housing data cited as justification by principals for increasing enrollment estimates.

c. Knowledge of the following facts, relative to the Trenton community, for instance...

   - There has been a large shift in the racial distribution of the population, from 75.8% white and 24.2% non-white in the 1960 census to 61.5% white and 38.5% non-white in the 1970 census, for a 45.8% increase in the non-white population. School enrollment has been relatively unchanged since 1968, despite the decline in

total population, as the emigration of whites has been compensated for by an influx of black and Puerto Rican families with school age children.

- The white community is largely Catholic. The announcement of an increase in tuition from $200.00 to $350.00 in the Catholic schools, effective for the school year 1972-73, may have significance for public enrollments. Further, the absence of a kindergarten program in the parochial schools causes preschoolers to attend public kindergarten classes, transfer to parochial school in the early grades to obtain religious training, and then return to the public school at the secondary level.

Blocks - E & F. The Director then prepares two enrollment forecast reports. Report 1 provides the estimate of enrollment by grade, by school, as revised by the Director of Adult Education. Report 2 provides enrollment estimates as submitted by the school principals. Enrollment summaries are provided by school, by grade, for the district, and by program (Elementary K-6 and Special Education classes, Junior 7-9, Senior 10-12, and Vocational).

The preliminary enrollment estimates, Reports 1 and 2, are distributed to the Secretary of the Board of Education (Business Manager), the Superintendent of Schools, and the Assistant Superintendents for Personnel and for Curriculm and Instruction, and to the Assistant to the Superintendent for Administration. Mrs. Kuser is not advised of any further adjustments in enrollment estimates made by management and incorporated into the Final Report. The Final Report, which is approved by the Superintendent, is used in the preparation of the coming year's budget. The final report containing enrollment estimates for the next school year and the actual number belonging as of September 30 for the

previous five school years, by program (Elementary, Junior, Senior, and Vocational) is included in the budget document. (See Table III-1 for this report.)

Summary of Data Used and Reports Generated

Data inputs to the enrollment process, by sources, are:

a. School principals and teachers (headcounts)

- number of students belonging September 30 current year x grade x school
- number of students belonging September 30 current year x special education category x school
- estimated enrollment for next school year x grade (1-12) x school
- estimated enrollment for kindergarten, based upon estimate of pre-school children expected to attend kindergarten, as provided by students in grades (1-6).
- enumeration of reasons for changes in enrollment

b. Director of Adult Education

- public and private housing data, as appropriate,
- membership as of September 30 x school for previous three years
- birth rates from census.

Reports generated are:

Report 1: Enrollment Estimates for next school year, grade x school, as revised by Director of Adult Education.

TABLE III-1. RECENT TRENTON PUBLIC SCHOOLS ENROLLMENTS
Trenton, New Jersey

Number Belonging 30 September	1966	1967	1968	1969	1970	Estimated for 1971	Total Increase (-Decrease) 1966-1971
Elementary	10,102	10,179	10,069	10,099	10,109	10,353	+ 251
Junior	3,992	3,854	3,702	3,660	3,907	3,937	- 55
T.H.S.	2,997	2,914	2,758	2,792	2,730	2,805	- 192
Vocational High	282	285	317	276	265	265	- 72
Accredited Evening High	533	531	392	350	322	315	- 218
Evening School Foreign Born	120	127	102	136	105	125	+ 5
TOTALS	18,026	17,890	17,340	17,313	17,438	17,800	- 226

Report 2: Enrollment Estimates for next school year, grade x school, as submitted by principals.

Final Enrollment Estimates, as revised by Superintendent and Business Department are approved by the Superintendent (included in budget document).

STEP ENROLLMENT FORECASTER

STEP ENROLLMENT FORECASTER

INTRODUCTION

Trenton houses at least two statistically distinct populations, one white and the other black. It's not known whether the other color or ethnic populations are statistically distinct and the lack of historical information on this development precludes separate statistical treatment. The two main populations differ from each other in their mobility and in their use of public school facilities. Any enrollment forecaster of reasonable pretention has to treat these populations separately.

District personnel already know the difficulties and hazards involved in attempting to anticipate the future. These difficulties and hazards range from uncertainties in the data base and functional relationships, to uncertainties as to the most expedient way of accomodating political pressures and social antagonisms. The proposed model will utilize the most certain of available data and well established statistical average relationships for dealing with it. However, it will not presume to speak in absolute numbers beyond drawing inferences from the most recently known actual enrollments as related to explicit assumptions on the pattern of community growth and development and judgement of the school principals.

The principals will be asked to report their September 30th enrollments and to evaluate the trends in public/non-public attendance given an estimate of current status. To help in this evaluation the principals will be provided with a statement of past enrollment trend and an estimate of current year enrollment, along with a summary of the kind of household trends on which the current enrollment estimates is based.

The basic procedure is not much different from that currently in use except that enrollment statements will be more elaborate and the translation of expectations into enrollment estimates will be explicitly related to census and planning data.

The experience accumulated in the making of enrollment forecasts by school and grade in large and complex school districts indicate such forecasts are subject to considerable error which sometimes can be attributed to changes in busing patterns, institution of open enrollment policies and, in the longer run, failure of civic plans in renewal and development to materialize as previously anticipated. This forecast will provide means for ad hoc adjustment to correspond with perturbations arising from inter-district transfers of students. Adjustment for the uncertainties associated with large scale renewal and development plans will be provided through an annual review of expectations by municipal and state agencies.

It is hoped that sufficient data and opinions can be collected to permit a trial run of the model this summer so that procedural debugging can be started next fall. Fourth count information from the 1970 census pertaining to educational and other social and economic data is expected to become available by December of this year and will be used to check on the calibration of the model when it becomes available.

The major administrative task involved in developing the enrollment forecaster concerns the development of enrollment reports at the secondary level by elementary school service area of residence. Survey forms will be developed which will include information on the movement of families to and within the city and on the student's major field of interest.

STRUCTURE OF THE MODEL

The geographical basis of the model will be comprised of areas designed to conform to elementary and junior high school service areas. Small changes in service areas affecting enrollment by less than 5 per cent at a school will not affect the functional relationships built into the model. The elimination of service areas or the creation of additional ones would involve redoing some of the basic calculations. The data base will be available for this work, but the calculations have not been included in the model. The work that would be required involves a different aggregation of census data and a different basis on which to report current enrollments.

The model will include and maintain a file of information for each service area and will be designed to proceed with one area at a time or with one after another so that computer requirements can be minimized.

The file will contain pertinent 1970 census data, an estimate of housing capacity, past public enrollments of area residents, and an updated estimate of households by race.

Logic and Application of the Forecasting Module

If one is given age distributions of the population by color, as well as stable relationships in the distribution of school age population by age and public school grade, and a stable relationship in the development of age distributions according to changes in housing supply, it is possible to infer changes in the number and racial distribution of households by school service area, from changes in public school enrollments. The prerequisites for this chain of inferences are derivable from the Federal censuses and can be made available from school district enrollment reports.

If one is also given a consensus on the prospective growth of the housing supply by school service area, a forecast of prospective public enrollments consistent with this consensus can be developed to yield enrollment estimates by school, grade, and color, assuming a continuation of household patterns revealed by the first analysis.

Forecasting must relate to specific geographical areas and time periods and must also depend on an extension of average patterns of behavior. Such averages, however, are not uniformly pervasive and any area at a given time will register its own particular facts. For this reason, forecasts will be presented in two ways. The first will be a statement in absolute numbers of enrollment development expected as of April 1 each year assuming that average conditions hold exactly in each district. The second will be a statement in relative numbers indexed to the estimate of current year enrollments. The second statement will be the one actually used when current year enrollments are actually known as of September 30 and March 31. At those times the expected relative growth rates will be applied to the actual enrollments to yield expected future enrollments.

There is probably a seasonal change in enrollment as between September and April so that the use of September actuals will yield September estimates. The use of March actuals to adjust the September enrollments further will serve as a correction for bias in the basic estimate.

It is recognized that September enrollments are of much greater interest to the School district for planning work. The forecast is done in terms of April enrollments only because that is the time when the Federal census is taken. It is analytically simpler to work in terms of annual average changes. This matter is of greatest importance as regards the cross-tabulations of

students by age and grade. An adjustment to a September cross-tabulation would be very cumbersome since the grade distribution would be nearly static while the age distribution would be different.

The time scheme of operations is indicated in the Activity Flow Chart (Figure III-2). It is important to note that basic forecasting activity is done in the summer. A forecast of the current year is made so that it will be known what to make of the actual enrollments when they become known. The April revision of the previous year's forecast for the coming September is the one that is supposed to match with the actual September enrollments, since it contains corrections for seasonal variation, bias, and systematic deviations in community characteristics. Such deviations include, for instance, various concentrations of school age population in particular single years of age. The model operates on 5 year age groups, as if the population were uniformly distributed by single year of age within these 5-year cohorts. Such a uniform distribution is never the actual case, but actual unevenness in the age distribution can be expected to persist, at least over the short run.

This approach to population and enrollment forecasting has been termed "Mobility Analysis" and the development of its statistical parameters is described in the following references. Over the short run it appears that the method is accurate to within 5 percent in about 2/3 of the cases without allowance being made for variation in housing type or racial composition. See: "Estimate of Future Population Growth by School District, Bucks County, Pa.", Arnold R. Post, Appendix D, Handbook of Statistical Procedures for Long-Range Projections of Public School Enrollment, A.J. Jaffe, Bureau of Applied Social Research, Columbia University, U.S. Government Printing Office, 1969, Catalogue No. HE 5.224:24017.

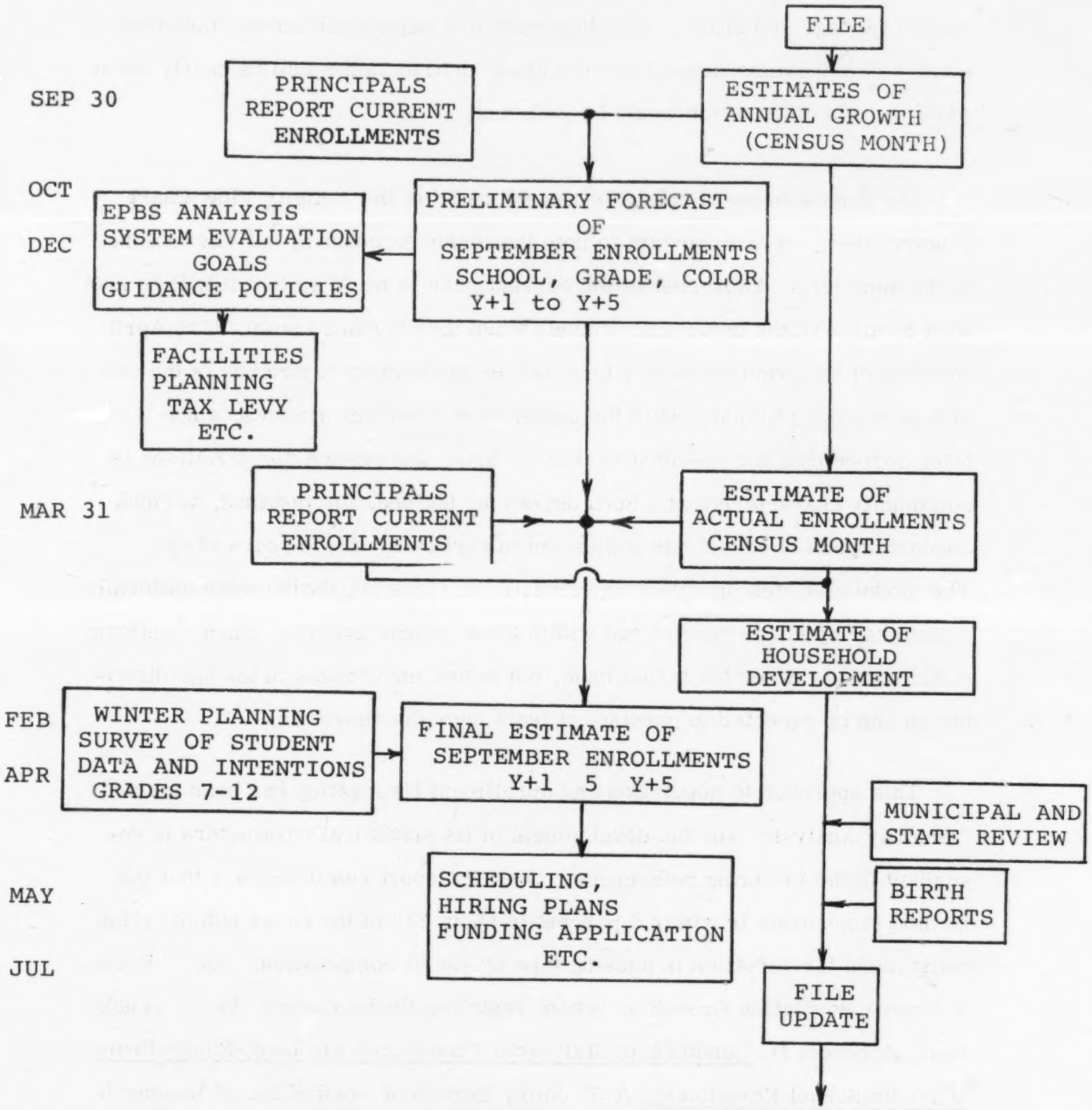

Figure III-2. Activity Flow Chart

"Mobility Analysis": Arnold R. Post, Journal of the American Institute of Planners, November 1969.

1969 Proceddings of the American Statistical Associations, Social Statistics Section, p. 261 F.

DATA USE AND CONSTRAINTS

Conceptual Design

Step 1. Assume no change in the number of households in a school service area; calculate an estimate of current public school enrollments according to this assumption for one population component.

Step 2. Compare the above estimate of enrollments with enrollments as actually reported March 31 each year.

Step 3. Estimate the change in number of households required to explain the differences between the enrollment figures.

Step 4. Extrapolate the trend in household growth as a basis for developing a working estimate of future public school enrollments.

Step 5. Repeat for other population component.

Step 6. Sum up results for both components.

Step 7. Repeat for other school service areas.

Step 8. Sum up results for the Junior High service areas and for school districts. Determine birth rates.

Step 9. Review findings on household growth with municipal and state agencies. Develop consensus on growth of housing supply. Conform district patterns of racial distribution to the estimate of housing supply growth.

Step 10. Prepare estimates of present non public enrollment and alternate estimates of future public school enrollments asuming constant share of enrollments to remain public, non public enrollments to hold constant, and non-public share to decline by 1/20 per year.

Step 11. Distribute enrollment estimates to principals.

Step 12. Receive September 30 enrollment statements from principals with comment and indication of preferred hypotheses regarding public-non-public shares of total enrollment.

Step 13. Prepare estimates of future September enrollments reflecting principals judgements and input to STEP system.

Data Constraints

Preliminary analysis indicates that the following data sources are not at present suitable for use. Housing authorization during the 1960's did not accurately reflect demolition activity, to judge from the reports of the 1960 and 1970 consensus. Reports from the archdiocese show enrollments by school location rather than by public school service area of pupil residence. It would appear that, on net, some Trenton students attend parochial high school outside the city while some elementary students come from outside the city to attend parochial elementary schools. More precise analysis may vitiate these observations, but for the present it seems advisable not to rely on these data in their present form.

Data Requirements - Start Up

1. 1960 and 1970 census tract data. Second and third count.

2. 1970 census block group data, first count.

3. Active Roll, March 31, by grade, color, language and school 1970, 1971. Also September 30, 1970.

4. School service areas 1969-70 and as proposed in short run.

5. Census tract boundaries, 1960.

6. Census tract and block group boundaries, 1970.

7. Air photos 1970.

8. Directory of selected school, municipal and state planning officers, and city redevelopment planners.

9. Fourth count census data when available.

Data Requirements - Ongoing

1. Active enrollment, March 31 and September 30 each year by school, grade, color and elementary school service area of residence.

2. Principals' opinions on special factors affecting enrollment in their schools.

3. Winter planning survey of student data and intentions for following year grades 7-12 by school, grade, color, language.

4. Planners' opinions on City growth.

CALIBRATION OF THE DEMOGRAPHIC MODEL

1. Census tract data for 1950, 1960, and 1970 for the City of Trenton will be analyzed to determine persistence rates of population by age-group and color, assuming no change in number of households and marginal changes of population attributable to the net changes in number of households for each race and pertinent age group. Since the city's census tracts provide a small sample, findings will be evaluated within the context of more broadly based studies which include similar information over the period 1930 to 1960. The analytical model is multiple linear regression under the ordinary least squares criterion.

2. The same census tract data will be studied for the purpose of estimating future changes in public-private enrollment and racial composition of each tract. The analytical model will include variance-covariance analysis through the use of dummy variables as described by Damodar Gujarti of the City University of New York in the American Statistician, Vol. 24, No. 1 February 1970.

3. The amount and location of open land within the City will be analyzed under terms of the City Zoning Ordinance and prevailing pattern of land use to determine, for each tract, its potential for new residential development. For this purpose air photos of the City will be required from the Delaware Valley Regional Planning Commission.

4. The results of tasks 2 and 3 will be presented as a base case to the staffs of the City Planning Commission and Redevelopment Authority for comment and review before being presented to the staff of the School District for final comment and review.

5. A tape of 1970 (first count) census returns by block group for the city will be acquired along with the Census Bureau's package display programs for the purpose of determining the characteristics of population and housing supply by school service area. If available, third and fourth count information will also be analyzed. At present, these counts are scheduled to be available by the end of the year. Third count data will provide block statistics and fourth count will provide sample information on educational, social, and economic data.

6. Cross tabulations of population by age and race and grade will be developed from the detailed statistics (Vol. 3) 1950 and 1960 consensus of the state and modified to fit the City's 1970 age and enrollment data. It is not certain how soon similar cross tabulations will

be available from the 1970 census; these relationships, however, were quite stable during the 1950's.

7. The demographic model will be calibrated to produce a close fit to Trenton City's experience as of 1950, 1960, and 1970 and tested against the school enrollment reports of 1970 and 1971 for a pilot cluster of service areas serving one of the Junior High Schools and the secondary schools.

8. File information will be developed for all elementary school service areas so that the total forecasting module will be operative by September, 1972.

THE REPORTING PROCEDURE

1. Forms will be developed for the use of elementary school principals to report active roll as of September 30 and March 31. The data wanted will include public school enrollments by grade, and race, and number of Spanish-speaking students resident in the school service area; enrollment at his school of students bused in, also by grade and race, and their elementary school area of residence.

2. Forms will be developed for an annual survey of junior and senior high school students to establish their intentions for the following year and determine their elementary school service areas of residence. These forms and procedures will be developed with the aid of the school principals and designed to fit in with established student accounting and guidance procedures now in use, insofar as possible.

3. Forms will be designed to expedite the collection of commentary of municipal and state officials on expectations of growth of the city housing supply.

4. A check list will be developed to assist the administrator of pupil forecasting in the management of forecasting activities.

OUTPUT REPORTS OF THE ENROLLMENT FORECASTER

OUTPUT REPORTS OF THE ENROLLMENT FORECASTER

INTRODUCTION

Several enrollment forecast reports are generated as output for use in STEP. These outputs can be classified into two broad categories: district summary reports by grade, by program, and by program and student type, and detail reports by school. Each report has the characteristic of projecting enrollment for a multi-year planning period of five years.

Each type of output is discussed in the paragraphs below.

DISTRICT SUMMARY REPORTS

Trenton School District Enrollment Estimations - Report No-TSDENR-001

The first output report is entitled "Trenton School District Enrollment Estimations." An example of this output is provided as Table III-2. This report is composed of two pages. Page 1 of the report displays total district fall enrollments by the individual grades listed down the left-most column, and across the years of the planning period. The first two columns contain enrollment input data supplied by the district for the two years immediately preceding the first year of the planning period. The last five columns contain the enrollment forecasts estimated by the forecasting program. The last line of the report is the sum of grades 1-12 enrollment.

Page 2 of the report contains the same data as page 1, except that it is for public enrollment only. The public share of total enrollment is displayed on this page under the heading "Percent Public." The public share of the total enrollment figures is computed in the program by muliplying the "Percent Public" by grade, times the total enrollment estimates by grade for each year.

"Percent Public," the ratio of public to total enrollment, is based upon enrollment data furnished by the District for the year immediately preceding the first forecast year.

ENROLLMENT ESTIMATIONS BY PROGRAM - REPORT NO. -TSDENR-002

The second district summary report is titled "ENROLLMENT ESTIMATIONS BY PROGRAM," and is shown as Table III-3. The estimates of enrollment for each year of the five year forecast period are printed for each of the programs indicated in the left-most column of the report. The sub-programs in the Instructional Program Area for which enrollment projections are displayed are Early Childhood (Pre-Kindergarten and Kindergarten), Primary (Grades 1 through 3), Elementary (Grades 4 through 6), Intermediate (Grades 7 through 9), Secondary (Grades 10 through 12), and Vocational.

The first two columns display actual enrollment by program for the two years immediately prior to the first year of the planning cycle. This data is collected, reduced, and supplied by the school district as input to the model. The next five columns contain the enrollment estimates for each instructional program by year, as forecasted by the model. The "TOTAL" line represents the sum of Programs Early Childhood through Vocational of enrollment actual data and estimations for each year displayed.

The "Percent of Total" column is the ratio of enrollment estimates by program for the forecast period to the total enrollment estimates for the forecast period.

PROGRAM SUMMARY REPORTS

Enrollment Estimation for Programs by Grade and Student Type

Enrollment forecast reports by grade and student type are output for each instructional program. These reports are entitled. ENROLLMENT ESTIMATIONS FOR EARLY CHILDHOOD PROGRAM, REPORT NO.-TSDENR-003, ENROLLMENT ESTIMATIONS FOR PRIMARY PROGRAM, REPORT NO.-TSDENR-004, ENROLLMENT ESTIMATIONS FOR ELEMENTARY PROGRAM, REPORT NO.-TSDENR-005, ENROLLMENT ESTIMATIONS FOR INTERMEDIATE PROGRAM, REPORT NO.-TSDENR-006, ENROLLMENT ESTIMATIONS FOR SECONDARY PROGRAM, REPORT NO.-TSDENR-007, and ENROLLMENT ESTIMATIONS FOR VOCATIONAL PROGRAM, REPORT NO.-TSDENR-008. A sample output of the report of ENROLLMENT ESTIMATIONS FOR PRIMARY PROGRAM is shown in Table III-4.

The output displays enrollment estimations for a program, in the case of Table III-4, the PRIMARY PROGRAM, for each year of the five year planning period. The estimates are printed for each grade included in the program (horizontal axis) within each of the ethnic categories listed down the left margin of the report. The "TOTAL" row indicates total enrollment estimates by grade for each primary grade, while the "TOTAL" column shows total annual enrollment estimates for a program by ethnic categories.

Enrollment estimates for each of the other instructional sub-programs are displayed similarly.

DETAIL REPORTS

Enrollment Estimations of Student Type by School

Enrollment estimation reports of student type by grade for each school in the district are produced as output. Data is printed for each year in the planning cycle. The general title of the school enrollment estimation report is "ENROLLMENT ESTIMATION FOR Schoolname SCHOOL BY GRADE AND STUDENT TYPE," where the actual school name replaces Schoolname. These reports are numbered consecutively beginning with REPORT NO.-TSDENR-009 up to REPORT NO.-TSDENR-035. An example of the format of a detail school enrollment estimation report for Cadwalader School is shown in Table III-5.

Enrollment estimates are made for each grade listed down the left margin, within each of the ethnic categories displayed across the horizontal axis (sixth row from the top). The "TOTAL" row indicates total annual enrollment estimates by ethnic category for the school, and the "TOTAL" column provides a total annual enrollment estimate for the school by grade. Figures representing total school enrollment by racial background are printed by grade clusters or subprograms (Early Childhood, Primary, and Elementary grade clusters in the sample output report) conducted at the school.

Public Enrollment Estimation Totals by School, REPORT NO.-TSDENR-036

Enrollment estimations are displayed for each year of the planning cycle by school. An example of this type of report is provided in Table III-6. School names are shown in the left-most column, and are grouped by level, i.e., Elementary, Intermediate, and Secondary. Annual enrollment estimation totals are printed for instructional level and an annual "GRAND TOTAL" is also displayed.

TABLE III-2 (PART 1)

TRENTON SCHOOL DISTRICT ENROLLMENT ESTIMATIONS
PAGE 1

REPORT NO.-TSDENR-001
RUN DATE

TOTAL ENROLLMENT ESTIMATES

	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY
PK	XXXX*						
K	XXXX						
1	XXXX						
2	XXXX						
3	XXXX						
4	XXXX						
5	XXXX						
6	XXXX						
7	XXXX						
8	XXXX						
9	XXXX						
10	XXXX						
11	XXXX						
12	XXXX						
TOTAL	XXXXX						

*The X's represent the maximum number of characters for the fields.

TABLE III-2 (PART 2)

TRENTON SCHOOL DISTRICT ENROLLMENT ESTIMATIONS
PAGE 2

REPORT NO.-TSDENR-001
RUN DATE

PUBLIC ENROLLMENT ESTIMATES BY GRADE LEVEL

GRADE	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY	PERCENT PUBLIC
K	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	0.XXXX
1	XXXX							
2	XXXX							
3	XXXX							
4	XXXX							
5	XXXX							
6	XXXX							
7	XXXX							
8	XXXX							
9	XXXX							
10	XXXX							
11	XXXX							
12	XXXX							
TOTAL	XXXXX*							

TABLE III-3.

TRENTON SCHOOL DISTRICT ENROLLMENT FORECAST
ENROLLMENT ESTIMATIONS BY PROGRAM

REPORT NO.-TSDENR-002
RUN DATE

PROGRAM	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY	YYYY	PERCENT OF TOTAL
EARLY CHILDHOOD	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	0.XXXX
PRIMARY	XXXX							
ELEMENTARY	XXXX							
INTERMEDIATE	XXXX							
SECONDARY	XXXX							
VOCATIONAL	XXXX							
TOTAL	XXXX							

TABLE III-4.

TRENTON SCHOOL DISTRICT ENROLLMENT FORECAST

REPORT NO.-TSDENR-004
RUN DATE

ENROLLMENT ESTIMATIONS FOR PRIMARY PROGRAM BY GRADE AND STUDENT TYPE

	CY				Y1				Y2				Y3				Y4				Y5			
GRADE	1	2	3	TOTAL	1	2	3	TOTAL	1	2	TOTAL	1	2	3	TOTAL	1	2	3	TOTAL	1	2	3	TOTAL
ETHNIC GROUP																							
BLACK	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXXX	XXXX	XXXX	XXXX	XXXXX
WHITE	XXXX																							
SPAN.	XXXX																							
TOTAL	XXXXX																							

TABLE III-5.

TRENTON SCHOOL DISTRICT ENROLLMENT FORECAST

REPORT NO.-TSDENR-009
RUN DATE

ENROLLMENT ESTIMATION FOR CADWALADER SCHOOL BY GRADE AND STUDENT TYPE

	CY				Y1				Y2				Y3				Y4				Y5			
ETHNIC GROUP GRADE	BLCK	WHITE	SPAN	TOTL	BLCK	WHITE	SPAN	TOTL	BLCK	WHITE	SPAN	TOTL	BLCK	WHITE	SPAN	TOTL	BLCK	WHITE	SPAN	TOTL	BLCK	WHITE	SPAN	TOTL
PK	XXX	XXX	XXX	XXXX	XXX	XXX	XXX	XXXX	XXX	XXX	XXX	XXXX	XXX	XXX	XXX	XXXX	XXX	XXX	XXX	XXXX	XXX	XXX	XXX	XXXX
K	XXX																							
1	XXX																							
2	XXX																							
3	XXX																							
4	XXX																							
5	XXX																							
6	XXX																							
TOTAL	XXXX																							
PK-K	XXXX																							
1-3	XXXX																							
4-6	XXXX																							

TABLE III-6.

TRENTON SCHOOL DISTRICT ENROLLMENT FORECAST

REPORT NO.-TSDENR-036
RUN DATE

PUBLIC ENROLLMENT ESTIMATION TOTALS BY SCHOOL

	YEARS				
SCHOOL	1971	1972	1973	1974	1975
CADWALADER	XXX	XXX	XXXX	XXXX	XXXX
COLUMBUS					
WILSON					
TOTAL ELEM.	XXXXX				
JUNIOR #1					
.					
.					
.					
JUNIOR #5					
TOTAL INTERMED	XXXX				
TRENTON HS	XXXX				
VOCATIONAL	XXX				
TOTAL SECONDARY	XXXX				
GRAND TOTAL	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX